



Montana Department of
ENVIRONMENTAL QUALITY

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Office of Enforcement
Compliance & Environmental
Justice

Brian Schweitzer, Governor
Richard H. Opper, Director

January 19, 2010

Linda Jacobson
RCRA Project Manager
Region VIII
1595 Wynkoop Street
Mailcode: 8ENF-RC
Denver, CO 80202-2466

RE: Comments on Asarco East Helena RFI Phase 2 Work Plan

Dear Ms. Jacobson:

The Montana Department of Environmental Quality (Department) has reviewed the document *Phase II RCRA Facility Investigation, Site Characterization Work Plan, Asarco East Helena Facility* (Work Plan). This document was submitted by Asarco under a cover letter dated September 25, 2009.

The Department has the following comments on the Work Plan:

General Comments

1. **Paved Areas:** Soil samples have not been collected across a large areal portion of the plant due to paving. How long the paving has been in place is not discussed in the report. The subsurface soil contamination in this area is not known. Although the paving may work as a cap now, maintenance of the paving is not required by an enforceable document and future use of the smelter property may not facilitate maintaining the pavement. EPA should consider requiring a minimal amount of soil sampling especially in large paved areas such as the parking lot in the northwestern area of the property.

Specific Comments

2. **Section 3.1.1 Surface Soil Sampling:** The proposed list of constituents to be sampled should be clearly stated or referenced. A table of analytical parameters is provided ten pages after the beginning of the soil sampling discussion.
3. **Section 3.1.1.1 Sampling Locations:** Surface soil samples for the Slag Pile and Asarco Housing are proposed in this section. The discussion on page 3-5 discusses three additional surface soil samples at the slag pile. Subsurface samples of slag especially at the interface with the water table may be useful. However, the utility of Slag Pile surface samples is questionable.

Given the recent proposal by the Montana Environmental Trust Group, LLC to demolish the residential houses on Asarco property, the Department believes that the soil sampling for the Asarco Housing area should be reevaluated. The Department believes that the number of samples proposed (46 surface samples) may be reduced.

4. **Section 3.1.1.2 Sampling Methodology:** The proposed protocol for decontamination of surface soil sampling equipment is inadequate. Most protocols include decontamination steps that include cleaning with detergents and rinsing with distilled or deionized water.
5. **Section 3.1.2.2 Sampling Methodology:** The Work Plan should explain how drill cuttings will be managed.
6. **Section 3.1.3.1 Total Metals Analysis, page 3-14:** The Work Plan references EPA Region 9 residential Risk-Based Screening Levels for soils. EPA has harmonized risk-based screening levels used by Region 3, 6, and 9 into one table of risk-based screening values. The Work Plan should not specifically reference Region 9 values but should be updated with values from "Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites."
7. **Section 3.1.3.1 Total Metals Analysis, page 3-14:** Subsurface soil samples are proposed to have project required detection limits (PRDLs) based on standard laboratory reporting limits, to be consistent with previous results obtained for the site. The Department recommends that the reporting limits be low enough to allow comparison with EPA Regional Screening Values for human health and leaching to groundwater.
8. **Section 3.2.1 Proposed Well Locations and Depths:** The Work Plan proposes a deep well (EH-138) in Lamping Field. The Work Plan should further consider the potential of causing contamination to the deep aquifer by drilling the well. In Section 2.3.1.3 Aquifer Hydraulic Characteristics, Asarco states that the upward gradient observed on the plant site at wells DH-13 and DH-18 should prevent cross contamination of the deep aquifer from the shallow/intermediate plumes on the plant site. The Work Plan should further explain whether this holds true for the area to the north of the plant, i.e. Lamping Field.
9. **Section 3.2.2 Drilling and Construction of New Monitoring Wells:** The Work Plan should explain how drill cuttings will be managed.
10. **Section 3.2.2 Drilling and Construction of New Monitoring Wells:** This section discusses collecting samples to document the subsurface lithology and to provide samples for analysis during monitoring well installation. The section also discusses analysis for total metals. However, the Department found the language confusing and recommends EPA clarify that subsurface soil will be collected for analysis of inorganics during monitoring well installation. If Asarco did not intend to collect this data, the Department recommends EPA require Asarco to collect subsurface soil samples during the on-site groundwater well installation. Subsurface data from these locations may be useful for site characterization.

If you have any question regarding this letter, please contact me at phone number (406) 444-3983 or the e-mail address below.

Sincerely,



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cc: facility file – Asarco, Corrective Action